

13. Diseases of the Musculoskeletal and Connective Tissue

References

Ochi H, Katsumi Y, Katayama K, et al. The effect of acupuncture with quadriceps exercise for the osteoarthritis of the knee joint — the importance of quadriceps exercise —. *Toyo Igaku to Pain Clinic (Oriental Medicine and the Pain Clinic)* 1993; 23(3): 136–42 (in Japanese with English abstract). Ichushi Web ID: 1994241815

Ochi H, Katayama K, Ikeuchi T, et al. Acupuncture with quadriceps exercise for osteoarthritis of the knee joint. *Zen Nihon Shinkyu Gakkai Zasshi (Journal of the Japan Society of Acupuncture and Moxibustion)* 1990; 40(3): 247–53 (in Japanese with English abstract). Ichushi Web ID: 1991224289

1. Objectives

To evaluate the effectiveness of acupuncture combined with therapeutic exercise for knee osteoarthritis.

2. Design

Randomized controlled trial (RCT).

3. Setting

Department of Orthopedic Surgery, Meiji University of Oriental Medicine (current Meiji University of Integrative Medicine) Hospital, Kyoto, Japan.

4. Participants

Nineteen patients diagnosed with knee osteoarthritis.

5. Intervention

Arm 1: Acupuncture, silver spike point (SSP) electro-therapy, and exercise group (n=6, mean age:59 years).

Arm 2: Acupuncture and SSP group (n=7, mean age: 51 years).

Arm 3: Therapeutic exercise group (n=6, mean age: 68 years).

Acupuncture: stainless steel disposable needles (0.18 mm×40 mm) were used to apply the sparrow pecking technique at 9 points in the thigh region and the GB31 (風市), ST36 (足三里), GB34 (陽陵泉), and SP9 (陰陵泉) acupuncture points once a week. SSP therapy: stimulation (compression wave, 10 minutes) was applied between the knee and the thigh. Therapeutic exercise: Participants did strengthening exercises at home for the muscles around the knee. The treatment period was one month.

6. Main outcome measures

Score on a specially-designed evaluation (comprehensive evaluation of pain, activities of daily living, and physical findings) and muscle strength score.

7. Main results

The comprehensive score increased significantly between the start of treatment and one month later ($P<0.01$) in Arms 1 and 2 but not in Arm 3. The muscle strength score for knee extension increased significantly in Arms 1 and 3 ($P<0.05$) but not in Arm 2.

8. Conclusions

Combined use of acupuncture, SSP therapy, and therapeutic exercise is useful.

9. From acupuncture and moxibustion medicine perspective

The paper mentions the risks of acupuncture to the joints, and uses SSP as an alternative therapy.

10. Safety assessment in the article

None.

11. Abstractor's comments

This valuable paper investigates the effectiveness of combining SSP therapy and therapeutic exercise with acupuncture treatment for knee OA, and it evaluates the differences between their effects. However, the authors should address issues such as the small group size (n=6 and 7), the lack of between-group comparison (only within-group comparison is reported), and the lack of analysis of any post-treatment effects. Yet, the study was designed to address real clinical issues and as such it has great significance. Hopefully, an even higher quality clinical trial that includes sample size calculations and WOMAC evaluation will be conducted. The authors' 1990 paper deals with the same matter: this abstract addresses the present paper only.

12. Abstractor and date

Kawakita K, 30 January 2012.